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#### ABSTRACT

The general objective of a study conducted in the 1950's was to describe the physical and human resources of the rural areas in north-central New Mexico. The specific objectives were (1) to inventory and classify the land, labor, and capital resources, (2) to determine levels and sources of incomes of these households, and (3) to appraise some of the opportunities for increasing income levels. Results of the study are based on personal interviews with members of 234 randomly selected rural households in Rio Arriba, Sandoval, Santa Fe, and Taos counties. Among the findings were that (1) the population had been relatively stable for the previous 15 to 20 years; (2) large families had been characteristic in north-central New Mexico; (3) age distributions of the sample households and of the United States population presented different patterns; (4) a relationship existed between ages of household members and levels of formal education; (5) the employment records of a large percentage of the sample were not stable, with only a small proportion reporting employment in professional or semiprofessional jobs; and (6) a high proportion of incomes for the sample households was from sources other than employment. Various tables are included. (CM)



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October, 1960

# Rural People and Their Resources

North-Central New Mexico

Agricultural Experiment Station
NEW MEXICO STATE UNIVERSITY
of Agriculture, Engineering, and Science
in cooperation with the
Farm Economics Research Division
Agricultural Research Service
United States Department of Agriculture





# Contents Summary ...... iii Introduction ..... Purpose and Need of Study ..... W Scope and Method of Study ..... Description of Area Historical Background ..... Economic and Social Background Physical Characteristics ..... Population, Income, and Employment ..... Agricultural Characteristics ..... Land Use Rural Household Characteristics Size of Household ..... Age, S., and Education ..... Living Conveniences ..... Employment of Household Members ..... Availability for Employment ..... Outmigration of Household Members Levels and Sources of Income Levels of Income ..... Sources of Income ..... Adjustment Potentials 22 Farm Characteristics Size of Farm ..... Income and Investment Characteristics ..... Crops and Livestock ..... Farm Finance ..... Appraisal

i

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Special acknowledgment is made to the rural families of north-central New Mexico who responded to the survey.



# Summary

The study reported is intended to provide information for use in the Rural Development Program.

The study was based on a sample of 171 rural non-farm and 63 rural farm households in north-central New Mexico. It was directed primarily toward describing the physical and human resources of the area.

The study area has long been in a chronic and serious low-income position. Small subsistence farms are characteristic. Division and subdivision of farmland through inheritance has progressed to the point beyond which further division, in some instances, is almost a physical impossibility.

Population has been relatively stable for the last 15 to 20 years. About two-thirds of the population is classified as rural. The city of Santa Fe is the only segment classified as urban.

In 1954, more than two-thirds of the farms in the area were less than 30 acres in size, but these farms accounted for less than 1 per cent of the total land in farms.

Large families have been characteristic in north-central New Mexico. In 1957, about 21 per cent of the sample households had seven or more members, and 44 per cent had five or more members. Only 22 per cent of all U.S. households had five or more members in the same year. Average size of family has been increasing in recent years.

Age distributions of the sample households and of the U.S. population present different patterns. The sample household had a relatively heavy concentration in the younger and older age groups. More than 50 per cent of the sample population was less than 20 years of age.

There is a relationship between age of household members and level of formal education. The 14- to 24-year age

groups had an average of 9.4 years of formal education, compared with 4.5 years for those 65 or over. Nearly 10 per cent of the household members aged 14 or more had had no formal education.

Modern living conveniences are very limited. Only a third of the sample households had piped running water, 30 per cent had gas kitchen stoves, 24 per cent subscribed to a daily newspaper, and 89 per cent had electricity.

Only 58 per cent of the rural nonfarm household heads reported employment income in 1956. About twofifths of those reporting employment in 1956 worked more than 200 days.

Of 135 household members who reported as available for employment, only 58 per cent indicated that they were actively seeking employment. Of 69 household members who said they were willing to leave home to get work, nearly a third had no plans to do so.

Only a small proportion of household members reporting employment in 1956 worked at professional or semiprofessional jobs. Most were working as common or semiskilled laborers of a type that requires little formal education.

The 234 sample households reported a total of 332 children who had left home to stay. Of these children, nearly 51 per cent were living within the sample area. About 55 per cent of the females and 47 per cent of the males who had left home to stay were living in the sample area. Male migrants who moved outside the sample area had relatively better jobs and were more fully employed than those who remained in the area.

Nearly 59 per cent of the sample farm households and 55 per cent of the non-farm households had cash in-

comes of less than \$2000 in 1956. More than 77 per cent of the households whose family head was age 65 or over reported incomes of less than \$2000 in 1956. This compares with 61 per cent in the 55- to 64-year age group, 49 per cent in the 45- to 54-year age group, and 43 per cent for those under 45.

In 1956, a high proportion of the incomes of the sample households was from sources other than employment. Nearly a fifth were receiving public welfare assistance. About 30 per cent were receiving either unemployment compensation or public welfare payments or both.

Of 124 households reporting 1956 incomes of less than \$2000, about 69 per cent of the heads were either (1) males age 65 or over, (2) males under age 65 with physical limitations or with less than 5 years of formal education, or (3) females.

Only 20 of the 63 sample farms were classified as commercial. Nearly two-thirds of the commercial farms had a value of sales in 1956 of less than \$2500.

Except for the larger commercial operators, the use of farm credit was very low. Three commercial operators accounted for 68 per cent of the total debt outstanding at the end of 1956.

Machinery and equipment investments are very low on most farms in north-central New Mexico.



# Rural People and Their Resources North-Central New Mexico

Marlowe M. Taylor<sup>1</sup>

# Introduction

#### Purpose and Need of Study

New Mexico, the "Land of Enchantment," is not without a background of economic, social, and cultural barriers and obstacles that have fostered and perpetuated a serious low-income problem. This is particularly true of rural areas in the upper Rio Grande Valley, which embraces a relatively large area in the north-central part of the state. The casual observer who snaps a color shot of an adobe shack draped with colorful strings of red chile would find a different picture if his camera could penetrate the walls, record a case history of the household, and probe into the very minds of the occupants.

There has been growing concern on the part of public official and others with regard to the severity of the rural low-income problem and the means of alleviating it. In view of public concern over the low-income problem in rural areas of New Mexico, this study was undertaken primarily to provide information that might be useful in programs designed to alleviate the situation. To achieve this purpose, the following objectives were formulated for an area in north-central New Mexico where the problem is acute: (1) Inventory and classify the land, labor, and capital resources of a sample of rural households in the study area,

(2) determine levels and sources of incomes of these rural households, and (3) appraise some of the opportunities for increasing income levels.

#### Scope and Method of Study

Results of this study are based largely on personal interviews with members of 234 rural households selected at random in Rio Arriba, Sandoval, Santa Fe, and Taos counties. Indian reservations and pueblos were excluded from the sample because their income problem differs from that of the rest of the people in the sample area. This exclusion resulted in a sample composed largely of households of Spanish descent.

Of the 234 households, 63 were classified as rural farm and the remaining 171 as rural non-farm. To be classified as rural farm, the unit had to conform with either of two criteria: (1) It should comprise three acres or more and have produced \$150 or more of farm products (excluding home garden) in 1956, or (2) if less than three acres, it must have reported sales of farm products of \$150 or more in 1956. Except for the year of reporting, these criteria conform with those used for the 1954 Census of Agriculture.

Information requested from respondents included such items as use and availability of credit, sources and

<sup>&</sup>lt;sup>1</sup>Agricultural economist, Farm Economics Research Division, Agricultural Research Service, USDA.

amounts of income, value of assets, level of living, household composition and characteristics, employment, and degree of mobility of household members. In addition, those classified as rural farm were asked to report on farm organization, production, and costs.

Information obtained by personal interview was supplemented with data from such secondary sources as the U.S. Bureau of the Census, New Mexico, New Mexico Department of Public Welfare, Farmers Home Administration, and others.

# **Description of Area**

#### Historical Background

Among the most dramatic episodes in the annals of American history are those of the conquest, settlement, and development of New Mexico. The story of the state is one of people who met and overcame incredible hardships and dangers for more than 350 years.

The conquest and colonization of New Mexico was accomplished by Don Juan de Oñate for the king of Spain in 1598, about nine years before the settlement of Jamestown in 1607. Oñate began his tedious journey northward from San Bartolomé, Mexico, in January, 1598, and crossed the Rio Grande near the present site of El Paso, Texas, in May of the same year. The precise number of people in the expedition is not known. One account indicated that there were about 170 men with families and an additional 230 men, including 129 enrolled soldiers. There were 80 loaded wagons, a long train of pack mules, 7000 head of livestock, and sufficient impedimenta for establishing a permanent colony.

The expedition reached a point near the present city of Santa Fe in August, 1598. Work was begun immediately on the construction of irrigation ditches, buildings, and other facilities. The settlement of New Mexico was under way. The early settlements were concentrated in the north-central part of the state, in or near the narrow valleys scattered along the Rio Grande and its upper tributaries, principally within the area on which this report is based—Rio Arriba, Sandoval, Santa Fe, and Taos counties.

In 1680, the Pueblo Indians staged a revolt and slaughtered or captured many of the Spanish settlers. The survivors, perhaps no more than half of the population, fled south to a site near El Paso. In 1693, the Spanish reconquered and resettled the area and were not again forced to submission or flight by the Indians.<sup>2</sup>

Initial settlement of New Mexico land was based on four types of land grants made by the king of Spain and later by the Mexican government. Grants were made to Indian villages (pueblos), groups of settlers for common use, individuals in return for establishment of settlements, and individuals for private use. Most of the land grants were of the first three types.

The principal grants were those for community use and those to individuals in return for service performed in initiating settlements. These individual settlers were given title to small holdings of arable land. In addition,

<sup>&</sup>lt;sup>2</sup>Clive Hallenback, Land of the Conquistadores (Caldwell, Idaho: The Caxton Printers, 1950).

grazing land for common use was granted to groups of settlers.

The money income of the early settlers came largely from the sale of sheep, wool, and hides in Mexico by way of the old Camino Real, which in general followed the Rio Grande from northern New Mexico south into Mexico.

The Treaty of Guadalupe Hidalgo in 1848 was supposed to have affirmed the Spanish and Mexican land grants. A land court, established to review claims to the grants, confirmed most of the titles to homesites and farmed land, but titles to grazing land often were not upheld because the land was held in common. Often, these grants were not written as tightly from a legal standpoint as were English land deeds. As a result, most of the common grazing land was lost to the Spanish-American communities in the land courts between 1850 and 1890. Furthermore, some of the community grant land was sold to Anglo-American settlers in the 1880's and 1890's. Consequently, the Spanish-American communities lost many of their resources except their homesites and irrigated land, which had never been more than subsistence units.

#### **Economic and Social Background**

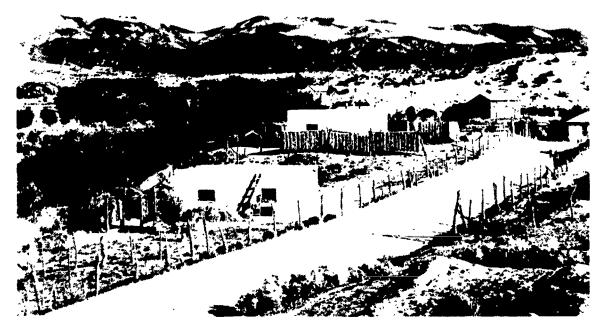
Nearly all of the arable land in north-central New Mexico was under irrigation before the Pueblo revolt of 1680. Except for a few large ranches, farms in the area are traditionally small. Over the years, the situation has been complicated by inheritance customs, which have resulted in division and subdivision of lands among family members. Through this process, many farms have become so small that fur-

ther division for agricultural use is almost a physical impossibility.

Centuries of custom and circumstances have largely exempted the Spanish-American population in the upper Rio Grande area from the usual influences that have helped to determine the development of agriculture in other parts of the United States. Its settlement was virtually complete before the enactment of public land laws, under which much of the nation was developed. For the most part, land in the area has not been a negotiable commodity. Tenure has generally passed from parent to child rather than from seller to buyer or mortgagee to mortgagor. As a result, the area and its people have been somewhat insulated from commercial competition. The consequences of bankruptcy, foreclosure, and maring of earnings on invested capital in the form of interest on loans have been exceptions rather than common practice.

The coming of the railroads in the late 1870's and early 1880's linked New Mexico with the East. This event not only provided an outlet for New Mexico products but also provided wage work for its people. This had a profound effect on the economic life of the territory. Many of the people became dependent on some wage work to supplement the meager livelihood obtained from the land.3 When wage work was not available locally they had to seek employment elsewhere or depend upon public assistance to ward off hunger. Centuries of tradition of close ties between family, community, and church have impeded the alternative of permanent outmigration. As a result, the unfavorable balance between physical and human resources has been a chronic problem.

<sup>&</sup>lt;sup>3</sup>U. S., Soil Conservation Service, Reconnaissance Survey of Human Dependency on Resources in the Rio Grande Watershed, Regional Bulletin 33, Conservation Economics Series 6, Dec. 1936.



Most agricultural land in north-central New Mexico is unsuitable for cultivation.

#### **Physical Characteristics**

The four county study area embraces approximately 8.8 million acres in north-central New Mexico. This is about 11 per cent of the total land area of the state. Only about 35 per cent of the area<sup>4</sup> is in private ownership. Most of the land suitable for cultivation is used for agricultural purposes (about 3 per cent of the land area). Grazing of livestock is permitted over extensive areas of land, much of which is under federal and state ownership or supervision. In general, crop production is not feasible without the aid of irrigation.<sup>5</sup>

Climate and topography of the area vary. Average annual precipitation ranges from about 10 inches in the lower valleys to approximately 30 inches in the highest sections along the Colorado boundary. Elevation varies from about 5000 feet in the lowest areas to nearly 14,000 feet atop the mountain peaks. The growing season ranges from about 79 days in the high areas to 178 days at lower altitudes.<sup>6</sup>

# Population, Income and Employment

In the last few years, population changes in the study area have been small and erratic compared with those in the state as a whole. The average annual rate of population increase in the study area was less than .1 per cent for the 1950-57 period. This compares with 4.4 per cent for the state. Population of the study area and New Mexico for selected years, 1920-1957, is indicated in the following tabulation:<sup>7</sup>

<sup>&</sup>lt;sup>4</sup>Estimate based on data contained in *New Mexico Business*, Bureau of Business Research, University of New Mexico, January, 1957.

<sup>5</sup>U. S., Census of Agriculture, 1954, I, Part 30, pp 43-44.

<sup>&</sup>lt;sup>6</sup>U. S., Department of Agriculture, Yearbook of Agriculture, 1941: Climate and Man (Washington, D. C.: U.S. Government Printing Office, 1941) pp. 1014-24.

<sup>&</sup>lt;sup>7</sup>Business Information Series, Bureau of Business Research, University of New Mexico, Nos. 25, 31, and 34.

	Pepu	Population				
Year	New Mexico	Study area				
	1,000	1,000				
1920	360.4	56.2				
1930	<b>423.3</b>	66.5				
1940	531. <b>8</b>	88.6				
1945	603.1	93.6				
1950	681.2	92.7				
1955	<b>803.8</b>	91.6				
1956	844.0	93.3				
1957	<b>891.3</b>	93.1				

Although the total population of the study area has been relatively stable in recent years, the proportion classified as urban has increased while the rural segment has declined. In 1940, the proportions were as follows: urban, 23 per cent; rural farm, 39 per cent; and rural non-farm, 38 per cent. This compares with 33, 30, and 37 per cent, respectively, in 1955. The increase in urban population of the area is attributed entirely to growth of the city of Santa Fe—the only location in the four counties classified as urban. For the state as a whole, the trend toward an increasing proportion of urban and a declining percentage of rural population has been much greater than for

the study area. This is due partly to a slower rate of growth of urban population in the study area. The rural farm population in New Mexico declined from 33 per cent of the total population in 1940 to 14 per cent in 1955. In the same period, rural nonfarm population declined from 34 to 24 per cent and urban population increased from 33 to 62 per cent of the total (table 1).

A distribution of population by age groups reveals proportionately higher numbers in the youngest and oldest groups for the study area than for the state as a whole. Conversely, the proportions in the middle age groups are smaller. These characteristics are re-

Table 1. Percentage distribution of total population by rural farm, rural non-farm, and urban classification, study area, north-central New Mexico, 1940-55

	8	Study area			New Mexico			
	1940	1950	1955	1940	1959	1955		
	Pct.	Pct.	Pct.	Pct.	Pct.	Pet.		
Rural:	***************************************							
Farm	39	30	30	33	20	14		
Non-farm	38	40	37	34	30	24		
Total	77	70	67	67	50	38		
Urban	23	30	33	33	50	62		

New Mexico Business, Bureau of Business Research, University of New Mexico. May, 1957.

Age group	Study area	New Mexico
	Pet.	Pet.
Under 14		32.8
14 to 19	11.9	10.1
20 to 39	27.0	31.9
40 to 64	19.8	20.6
65 and over	<b>4.8</b>	4.6

vealed in the above tabulation of percentage distribution of 1955 population by age groups.

In 1956, per capita income of the study area was about 40 per cent below that for the state in 1956. In the same year, retail sales in the study area averaged \$837 per person, while the New Mexico average was \$1321.

Approximately 19 per cent of the total labor force (employable persons age 14 or over) of the study area was

employed in agriculture in 1955, and in 1950 the proportion so employed was 21 per cent. This compares with 18 and 13 per cent, respectively, for the state. Thirty per cent of the 1955 population of the study area was included in the labor force, compared with 33 per cent for New Mexico.<sup>10</sup> The percentage distribution of total labor force by type of employment is presented in table 2.

Table 2. Percentage distribution of total labor force by type of employment, study area, north-central New Mexico and New Mexico, 1950 and 1955

	1:	1955		
Type of industry	Study area	New Mexico	Study area	New Mexico
	Pct.	Pct.	Pet.	Pet.
Agriculture	21	18	19	13
Mining and manufacturing	. 6	10	7	14
Construction	. 14	11	12	9
Transportation and trade	. 18	26	17	26
Business and professional	. 15	17	15	19
Educational service	. 6	5	6	5
Public administration	. 7	6	8	6
Type not reported	. 6	2	4	1
Unemployed	. 7	5	12	7

Business Information Series, No. 30, Bureau of Business Research, University of New Mexico, May, 1956.

<sup>\*</sup>Business Information Series, No. 30, May, 1956.

New Mexico Business, August, 1957.

<sup>10</sup>Business Information Series, No. 30, May 1956.

#### **Agricultural Characteristics**

Agriculture in the area is characterized by many small non-commercial farms. Farms with less than 30 acres accounted for more than two-thirds of the total number of farms in 1954 and 40 per cent of the total number contained less than 10 acres. Furthermore, farms with less than 30 acres accounted for less than 1 per cent of all land in farms in the same year. In contrast, farms with 1000 acres or more accounted for only 6 per cent of the total number of farms, but represented 93 per cent of the total land in farms.<sup>11</sup>

It might be pointed out, however, that as a measure of size of farm, acreage may tend to be misleading because of differences in intensity of land use. For the most part, the smaller-sized acreage groups depend on irrigated cropland for income, whereas the larger-sized groups are mainly range livestock operations. Therefore, some of the farms in the larger-sized groups—1000 acres or more—might be considered small in terms of agricultural production.

The prevalence of small units may be further illustrated by the distribution of grazing permits on national forests in the area. On three districts of the Carson and Santa Fe National Forests in 1956, 41 per cent of the permits were for less than 10 head of cattle and 75 per cent were for 1 to 30 head.<sup>12</sup>

The chief source of cash farm income in the area is from livestock sales. In 1954, this source accounted for 65 per cent of the value of all farm products sold.<sup>13</sup> The predominance of livestock is attributed to the extreme limitation of tillable land and comparatively vast areas of grazing land, including state and federal lands (table 3).

The proportion of all farms operated by tenants in the area is very low compared with that in other parts of the state. In 1954, the proportion was less than 3 per cent. About 85 per cent of the total number of farms were operated by full owners in that year.

Of 4544 farms in the area in 1954, only 1216 were classified as commercial. Only 8 per cent of the total num-

Table 3. Percentage distribution of farm products sold by sales of crops, livestock and livestock products, and forest products, north-central New Mexico, 1940-54

		Sales						
Year	Crop	Livestock and livestock products	Forest products	Total				
	Pet.	Pct.	Pct.	Pet.				
1940	26.0	73.4	.6	100.0				
1945	43.4	56.3	.3	100.0				
1950	24.7	74.7	.6	100.0				
1954	33.2	65.4	1.4	100.0				

Bureau of the Census.

<sup>11</sup> Census of Agriculture, pp. 51, 52.

<sup>12</sup>Hazen B. Pingrey, unpublished data.

<sup>12</sup>Census of Agriculture, p. 54.

ber of farms reported value of farm products sold at \$2500 or more.14

#### Land Use

Most of the land in farms in the area is grazing land, not suitable for cultivation. In 1954, only 3 per cent, or about 118,000 acres, of all land in farms was reported as cropland, and 45 per cent of this acreage was used only for pasture.

In terms of acreage harvested in 1954, hay (alfalfa and other) was the principal crop. Other crops in order of importance included small grains, corn, dry beans, tree fruits, and vegetables. Data pertaining to land use are

summarized in table 4.

Most north-central New Mexico farms are small. Each of the long narrow strips of land represent a single farm unit.



Table 4. Major uses of land in farms, study area, north-central New Mexico, 1954

Total land in farms	acres	3,792,830
Total cropland	acres	11 <b>7,802</b>
Cropland used only for pasture	acres	<b>53,121</b>
Crops harvested, percentage of total cropland:		
Alfalfa and other hay	per cent	<b>25</b>
Small grains	per cent	13
corn	per cent	5
dry beans	per cent	4
Tree fruits	per cent	3
Vegetables	per cent	1

Census of Agriculture: 1954, Volume 1, Part 30, pp. 43-44 and 71-84.

## Rural Household Characteristics

It is relatively easy to describe the rural households in terms of such items as persons, age, size, and educational levels. The difficulty arises in describing those characteristics that cannot be recorded in numerical terms and in relating the various factors in such a way as to be most useful as aids to programs designed to alleviate the chronic low-income situation in the area. It was not possible to record by means of personal interview, in either numerical or narrative terms, all of the basic information

needed to describe adequately the human resources. The recorded data are necessarily supplemented with a generous amount of judgment.

#### Size of Household

For many years, large families have been characteristic of north-central New Mexico. Families with 5 to 10 children are common. A total of 234 sample rural households reported an average of 318 children, including those who had left home. The average number of children per household who were living at home was 2.4.

<sup>14/</sup>bid., pp. 57-58.

Persons househo		Sample households	U.S. households		
		Pet.	Pet.		
1 to 2		29.5	40.5		
			37.0		
			17.0		
7 and	over	20.9	5.5		

The average size of household including relatives other than sons and daughters and non-relatives was 4.4 persons, compared with an average of 3.3 for the United States.

Size of household may be illustrated by comparing the distribution of sample households by number of persons with the distribution for the United States as a whole. The sample households had a considerably smaller proportion of the total number with one to four persons and a much larger proportion with five or more household members than the U.S. as a whole. The above tabulation illustrates the extent of differences.<sup>15</sup>

Additional information relating to household and family composition and size is presented in tables 5 and 6.

There are some indications that the average size of families in the sample

area has been increasing in recent years. Analysis of the number of living children per mother at age 20 shows a highly significant increase since about 1947. A part of the economic problems of low-income rural families in the area may be attributed to the increased financial burden of supporting these larger families.

#### Age, Sex, and Education

The age, sex, and educational characteristics of a given population have an important influence on the area economy. Mobility of the labor force, production and income capacity and capability, the incidence of public assistance programs, and other components depend to some extent upon these characteristics.

In some ways, the structure of these characteristics for the sample house-

Table 5. Rural household and family composition, study area sample, northcentral New Mexico, 1954

	Non-farm	Farm	Total
Number of households		63	234
Average number of persons per household Number of household members:	<b>4.1</b>	5.1	4.4
Head of household	171	63	234
Spouse	123	57	180
Children	. 387	172	559
Other relatives	. <b>25</b>	27	52
Non-relatives	<b>2</b>	1	3
Total	. <b>708</b>	320	1,028
Number of children away from home	. 215	117	332

<sup>15</sup>U. S., Bureau of the Census. Current Population Reports. Population Characteristics, Series P-20, No. 88, November 17, 1958, p. 9.

Table 6. Percentage distribution of households by size of household groups, study area sample, north-central New Mexico, 1957

Size groups	Non-farm	Farm	Total
	Pct.	Pct.	Pct.
1 to 2 persons	33.9	17.5	Pct. 29.5
3 to 4 persons		33.3	27.0
5 to 6 persons	<b>21.6</b>	25.4	22.6
7 to 8 persons	<b>15.2</b>	9.5	13.6
9 or more persons	<b>4.7</b>	14.3	7.3
Total	100.0	100.0	100.0

holds differs from that in other areas of New Mexico and the United States as a whole. More than 50 per cent of the total number of persons in the sample households were less than 20 years of age, compared with about 43 per cent for New Mexico<sup>16</sup> and 37 per cent for the United States.<sup>17</sup> Also, for

the sample households only 28 per cent were in the 20- to 44-year age groups, compared with nearly 34 per cent on a national basis. Compared with the United States figures, only a slightly higher proportion of the sample household members were age 65 or over (figure 1).

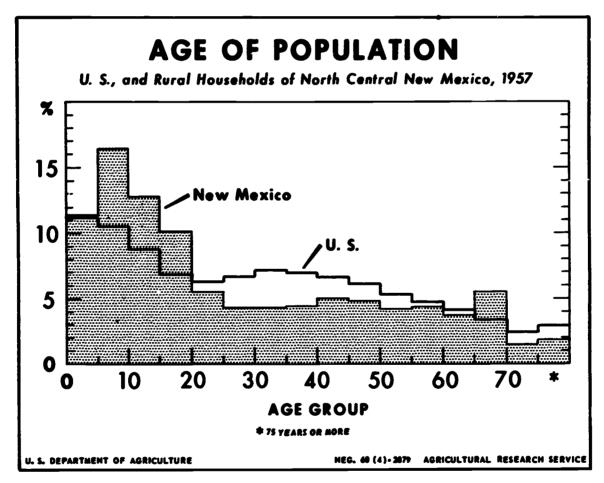


Figure 1.

\_\_ 10 \_\_

<sup>16</sup>Business Information Series, No. 30, May 1956, p. 3.

<sup>&</sup>lt;sup>17</sup>U. S., Bureau of the Census. Current Population Reports, Population Estimates, Series P-25, No. 187, November 10, 1958, p. 24. <sup>18</sup>Ibid.

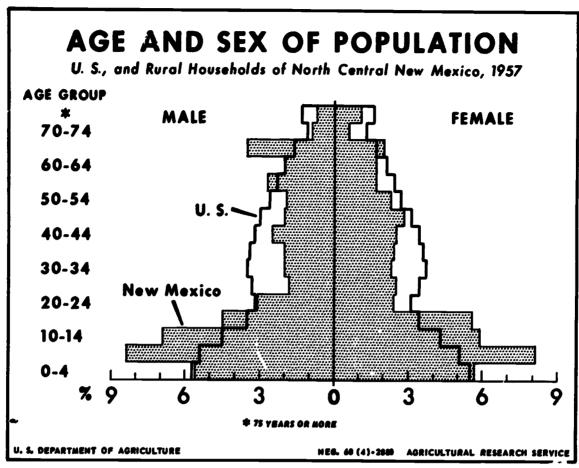


Figure 2.

Of the 234 sample households, nearly 47 per cent of the family heads were age 55 or more and 26 per cent were 65 or over. Less than 2 per cent were under 25 years of age and only about 15 per cent were under 35. Of 63 farm operators reporting, 54 per cent were age 55 or over, 5 per cent were under 35, and none were under 25 (table 7).

These data relating to age distribution reveal to some extent the nature of the rural low-income problem in north-central New Mexico. They give some indication that the incidence of contributing to family living may fall relatively more on the older and the younger age groups. The older age groups probably have greater resistance to change and less physical ability for productive labor than other groups.

Age distribution of the sample household population by sex indicates

that the pattern differs from that for the United States (figure 2). In 1957, slightly less than half of the total population of the sample households were females (49.6 per cent) and slightly more of the U.S. population (50.4 per cent) 19 were of that sex. For the sample households, there was a relatively heavier concentration of females in the 25- to 54-year age group compared with the male population and comparatively fewer in the 55- to 74-year age groups.

It has long been contended that improvement of formal educational levels has an important bearing on alleviating the low-income problem in such areas as north-central New Mexico. Not only would those individuals with higher levels of education who migrate to other areas find employment more readily available, but they would also have more inducement to

19Ibid.

Table 7. Distribution of 234 rural household heads by sex and age groups, study area sample, north-central New Mexico, 1957

	]	Non-farm	1		Farm		Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
24 or under	. 3	0	3	0	0	0	3	0	3
25 to 34	. 24	6	30	3	0	3	27	6	33
35 to 44	. 30	3	33	13	0	13	43	3	46
45 to 54	26	4	30	13	0	13	39	4	43
55 to 64	. 28	2	30	17	1	18	45	3	48
65 to 74	. 29	9	38	15	0	15	44	9	<b>53</b>
75 and over	. 3	4	7	1	_0	1	4	4	8_
Total	.143	28	171	62	1	63	205	29	234

seek jobs outside the area because of the better income prospects.

Educational levels of the sample household members have not been high, but substantial improvement has been made in the last several years. An analysis of formal educational levels of 528 household members 14 years of age and over (exclusive of those still in school) reveals a progressive trend toward higher educational levels from the higher to lower age groups. For example, the 14- to 24-year age group had an average of 9.4 years of formal education, compared with 4.5 years for those 65 or over. The average for all age groups was 7.3 years. It

was also noted that female household members had a higher average level than males—7.6 years compared with 7.0 years. Members of farm households tended to have more years of formal education than non-farm households, particularly in the older age groups (table 8).

Of the 528 household members, about 9 per cent had no formal education, nearly 27 per cent did not go beyond the fourth grade, and 49 per cent did not finish the eighth grade. About 35 per cent of these household members attended high school and 21 per cent completed the twelfth grade. Although 7 per cent had attended col-

Table 8. Average number of grades of formal education completed by age groups, sex and household membership status, 528 household members, study area sample, north-central New Mexico, 1957 1

	Average number grades completed by age groups							
Item	14 to 24		35 to 44	45 to 54	55 to 64	65 and over	Total	
	No.	No.	No.	No.	No.	No.	No.	
Household heads	7.7	9.2	8.7	5.5	5.9	4.1	6.4	
Spouse of heads	8.4	10.0	8.3	6.3	6.3	6.3	7.7	
All household member	rs:							
Non-farm	. <b>9.2</b>	8.9	8.5	5.7	5.5	3.6	7.0	
Farm	. 9.7	7.8	8.7	7.1	6.7	6.9	7.9	
Male	9.3	8.5	8.8	5.9	5.8	4.3	7.0	
Female	. 9.5	9.6	8.3	6.5	6.1	4.8	7.6	
All	9.4	9.1	8.5	6.2	6.0	4.5	7.3	

<sup>&</sup>lt;sup>1</sup> Excludes all members under age 14 and members 14 or over who were still in school.

lege, only 4 per cent had four or more years of college training. Those who had completed less than eight grades of school were concentrated in the middle and older age groups, while those with more education were concentrated more heavily in the middle and younger age groups (table 9).

#### **Living Conveniences**

One indication of the economic position of an area such as north-central New Mexico is the extent to which the residents enjoy such modern living conveniences as electricity, piped running water, telephones, television sets, and other items.

Unfortunately, the possession of many such common conveniences is very limited in the rural parts of the study area.

Each sample household was assigned an index<sup>20</sup> based on possession of

various living convenience items with a possible score of 100. The average index for all 234 households was 31.2, the median 21.0, and the mode 13.7. Percentage distribution of the sample households by index group and rural classification is presented in table 10. Table 11 shows the percentage of sample households who reported having the various convenience items.

# Employment of Household Members

Type and extent of employment offer problems that have been associated with rural areas of north-central New Mexico for a long time. As with any rural low-income area, the nature of employment is a key factor in the alleviation of the situation. It is becoming more apparent that single economic or social measures cannot effectively dissolve the concern and

Table 9. Percentage distribution by age groups of household members by formal educational level, study area sample, north-central New Mexico, 19571

	Total	Highest Grade Completed								
Age group	household members		2 00 0 00		12	13 to 15 <sup>2</sup>	16 and over 3	Total		
	No.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
14-24	81	1.2	1.2	12.3	28.5	26.0	29.6	1.2	0.0	100.0
25-34	85	2.4	3.6	21.2	20.0	25.8	21.1	3.5	2.4	100.0
35-44	102	2.0	13.7	27.4	10.8	14.7	21.6	1.0	8.8	100.0
<b>4</b> 5-54	<b>92</b>	6.5	<b>29.6</b>	33.8	10.8	7.6	4.3	2.2	5.4	100.0
55-64	81	12.3	<b>27.2</b>	25.9	18.6	3.7	3.7	4.9	3.7	100.0
65 and over	i 87	31.0	29.9	9.1	10.3	10.4	3.4	1.2	4.7	100.0
All ag						44.0	44.0		4.4	100.0
group	os 528	9.1	17.6	21.9	16.1	14.6	14.0	2.3	4.4	100.0

<sup>1</sup> Excludes all members under 14 and members 14 or over who were still in school.

<sup>&</sup>lt;sup>2</sup> Represents 1 to 3 years of college.

<sup>3</sup> Represents 4 or more years of college.

<sup>20</sup> The scoring system was devised under the direction of Miss Elsie Cunningham, state home agent, of the Cooperative Extension Service of New Mexico State University.

Table 10. Distribution of 234 households, by living convenience index groups and rural classification, study area sample, north-central New Mexico, 1957

					Rural households									
Inde grou				Non-	farm	Fa	rm	Total						
			-	No.	Pct.	No.	Pct.	No.	Pct.					
0 to	9			. 44	26	10	16	54	23					
	to	19		43	25	14	22	57	24					
	to	29		10	11	13	21	32	14					
	to	39		20	12	5	8	25	11					
	to	49		6	4	5	8	11	5					
_		59		5	3	4	6	9	4					
	to	69		6	4	4	6	10	4					
	to	79		11	6	3	5	14	6					
	to	89		12	7	3	5	15	6					
	to	100		5	3	2	3	7	3					
_	ota			171	100	63	100	234	100					

<sup>1</sup> Percentage may not add to 100 because of rounding.

Table 11. Percentage of 234 households reporting various conveniences, study area sample, north-central New Mexico, 1957

	House	holds rep	orting
Item	Non-farm	Farm	Total
	Pct.	Pct.	Pct.
Electricity	87	95	89
Electric or gas hot water heater		27	25
Electric or gas kitchen stove		25	30
Electric, gas, or oil heating systems		29	30
Electric or gas refrigerator		73	65
Radio		79	69
Television set		33	39
Power washing machine		87	82
Home food freezer		19	16
Rental of frozen food locker		3	2
Piped running water		38	33
Flush toilet		30	26
Telephone		11	13
Life insurance		43	39
Health insurance		30	29
Daily newspaper		26	24
1 to 1.9 rooms per person		51	<b>54</b>
2 or more rooms per person	_	11	9



Modern living conveniences are limited in many north-central New Mexico households.

circumstances surrounding the chronic problem. To make substantial progress in alleviating the chronic low-income situation in the area, a combination of several measures will have to be taken. The proportions of the combination will tend to determine the extent of any single action. How can available resources be allocated or reallocated in proportions that will improve incomes and levels of living? The situation is futher complicated by social and political factors. It may be economically feasible to implement measures that would conflict with social or political considerations.

A desirable change in the nature of the organization and composition of

the labor force in north-central New Mexico may be illustrated by some of the labor characteristics. Of 171 rural non-farm household heads, only 58 per cent reported any employment in 1956, and only about two-fifths of them reported that they were employed 200 or more days during the year. Of 124 wives of household heads, about 8 per cent reported employment of 200 or more days, and about 2 per cent reported employment ranging from 100 to 199 days in 1956. Some 28 per cent of other household members in the labor force reported some employment in 1956, but only 9 per cent reported 200 days or more (table 12). It might be pointed out, however,

Table 12. Employment of rural non-farm household members 14 years of age and over by household status, study area sample, north-central New Mexico, 19561

<del></del>		Persons Employed					
Household status	Total persons	Jess than 100 days	100 to 199 days	200 days or over			
	No.	No.	No.	No.			
Household heads	. 171	10	20	69			
Wives of heads	. 124	3	3	10			
Other members	. 68	9	4	6			
Total	. 363	22	27	85			

<sup>&</sup>lt;sup>1</sup> Excludes all persons age 14 or over who reported as still attending school. Includes one household that did not report on employment.

that the extent of unemployment or underemployment is weighted heavily with older people and women who in many instances are not seeking employment. Comparable data for sample farm households are not available.

For the most part, the 134 sample rural non-farm household members reported the type of employment which requires little formal education. Only a small proportion worked at professional or semiprofessional jobs in 1956 (table 13).

#### **Availability for Employment**

Each of the 234 rural household respondents were questioned about the availability and employment status of family members aged 14 and over. The response provided information about 625 household members, of whom 135 were reported as available for employment. The remaining 490 were reported as not available for employment. However, a large proportion of these household members were housewives and people in the older age groups.

Of 152 male household heads who were reported as not available for employment, 27 per cent were age 65 or over, compared with only 8 per cent of those who were available for work, Only 11 per cent of the male house-

hold heads who were not available for work were under age 35, compared with 31 per cent of those who were reported as available.

More than 90 per cent of the male household members other than household heads who were available for employment were under age 35. None in this group were above age 50. Of male household members in this class who were not available for employment, about 25 per cent were above age 50, and 60 per cent were under age 35. In general, this relationship held true for female members also (table 14).

Apparently, there is little relationship between level of education and availability for employment. Educational levels are related more to age than other characteristics (table 15).

A total of 75 household members indicated that they were available for employment outside their home communities. Of these, 92 per cent indicated willingness to live away from home to get work, 87 per cent were willing to move to another community for work, and 72 per cent said they would be willing to move to another state. About 57 per cent of the 75 household members planned to go to work outside the home community (table 16).

Table 13. Rural non-farm household members 14 years of age and over, by kind of employment, study area sample, north-central New Mexico, 1956

		Person	s employed	
Kind of employment	Less than 100 days	100 to 199 days	200 days and over	Total
	No.	No.	No.	No.
Unskilled labor	<b>9</b>	10	21	40
Skilled and semi-skilled labor .	6	8	30	44
Sales and clerical	1	2	12	15
Farm labor	4	7	5	16
Private business		0	11	11
Professional	<b>2</b>	0	6	8
Total	22	27	85	134

Table 14. Availability of household members for employment by sex, age, and household status, study area sample, north-central New Mexico, 1957

			Age	group		
Item	14 to 19	20 to 34	35 to 49	50 to 64	65 and over	Total
Mar Ser ann an an Air Service ann an Anna an A	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Not available for employment:	-	-				
Male household heads	. 1	10	30	32	27	152
Other males	. 4	<b>56</b>	15	11	14	75
Females	. 9	26	29	23	13	263
Total	5	22	28	25	20	490
Available for employment:						
Male houshold heads	0	31	38	23	8	<b>57</b>
Other males	16	80	4	0	0	28
Females	25	42	33	0	0	50
Total	10	48	26	12	4	135

Table 15. Availability of sample household members for employment by age, average years of education, sex, and household status, study area sample, north-central New Mexico, 1957

The state of the s	Age group and education level							
Item	11 to 19	20 to 34	25 to 4)	59 to 64	65 and over	Total		
	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.		
Not available for employment:		•						
Male household heads	8	9	8	6	4	6		
Other males	12	8	8	4	1	6		
Females	9	9	8	6	5	8		
Total	9	9	8	5	4	7		
Available for employment:								
Male household heads	<del>-</del>	10	8	5	8	8		
Other males	. 9	9	6			9		
Females	10	10	7			9		
Total	9	10	7	5	8	9		

Table 16. Household members' willingness to live away from home to obtain employment by age group, study area sample, north-central New Mexico, 1957

Item	14 to 19	20 to 34	35 to 49	50 to 64	65 and over	Total
	No.	No.	No.	No.	No.	No.
Total willing to work						
outside home community	7	34	17	12	5	75
Live away from home to work	7	32	14	12	4	69
Live in other community						
to work	7	21	13	10	4	65
Live in other state to work	3	26	12	10	3	54
Plan to work outside home						
community	2	22	9	8	2	43

These data indicate a discouraging element in regard to employment attitudes and conditions. Opportunities are limited by age and to some extent by sex. There is also resistance to leaving the home community for employment. Perhaps the attitudes of some of the people would change if sufficient incentive and security were offered. Such incentive would include specialized training, monetary considerations, and other inducements.

### Outmigration of Household Members

Some persons have contended that a substantially increased rate of out-migration of rural people from north-central New Mexico would be a major accomplishment in alleviating the low-income situation there. In the past, numerous barriers have prevented realization of such a movement. Close family and community ties, the uncertainty of opportunities outside the area, limited education, and other factors have tended to restrict outmigration from this area.

Apparently, some formal public program would be necessary if the rate of movement outside the area is to be realized to the extent of substantially improving the economic position of the remaining population. There is some evidence that the rate of movement from the area has been relatively low in recent years, considering the general economic position of the rural population. The rural population of the area has been fairly stable for the last several years. This is in contrast to most other rural areas of the state, where substantial declines in rural population have been reported.

The 234 sample households reported that a total of 332 children had left home to stay. Of these children, nearly 51 per cent were residing in the sample area, 14 per cent outside the sample area but in New Mexico, and 35 per cent had left the state. The proportion of females residing in the sample area after leaving home was 55 per cent, compared with 47 per cent for males. About 31 per cent of the females who had left home to stay were residing out of the state, compared with 38 per cent for the male migrants. Female migrants tended to leave home at an earlier age than males, but larger proportions of females tended to remain in or near the home community (tables 17 and 18).

A tabulation of male migrants by occupation and place of residence indicates that those who moved out of the state have relatively better jobs

Table 17. Distribution of children who have left home to stay by age at time of leaving, sex, and place of residence, rural households, study area sample, north-central New Mexico, 1957

		C	)iher :	New Me	xico c	ommunit	<b>y</b>	- Average - Average		
Age at time of leaving	Home community		In sample area		Outside sample area		Out of state		Total	
home	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Under 20	12	23	7	17	6	11	22	27	47	78
20 to 24	20	14	8	22	8	10	19	13	55	59
25 to 29	10	5	5	3	6	1	9	3	30	12
30 and over Age not	3	1	2	1	2	1	8	1	15	4
	10	2	2	2	3	0	6	7	21	11
Total	55	45	24	45	25	23	64	51	168	164

Table 18. Distribution of children who have left home to stay by year of leaving, sex, and place of residence, rural households, study area sample, north-central New Mexico, 1957

				Pla	ce of :	residence	•			
Year left	Home community		In sample area		Outside sample area		Out of state		Total	
home	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1951-56	. 19	15	5	21	8	9	36	16	68	61
<b>1945-50</b>	. 13	15	11	11	9	8	13	12	46	46
Before 1945 Year not	16	9	7	11	5	6	8	15	36	41
reported	. 7	6	1	2	3	0	7	8	18	16
Total	. 55	45	24	45	25	23	64	51	168	164

and are more fully employed than area or elsewhere in New Mexico (tathose who remained in the sample ble 19).

Table 19. Distribution of male children who have left home to stay by occupation and place of residence, rural households, study area sample, north-central New Mexico. 1957

	P	lace of resid	ence
Occupation	In sample area	Outside sample area	Tota
	No.	No.	No.
Unskilled labor	28	17	45
Skilled and semi-skilled labor	13	23	36
Sales and clerical	5	7	12
Armed forces	0	12	12
Parm operator	<b>7</b>	1	8
Farm labor	1	5	6
Canagerial and administrative		2	6
ducation	_	4	7
Private business	4	1	5
Professional	5	0	5
Jnemployed	5	3	8
Unclassifed	_	4	6
Occupation not reported	_	10	12
Total	79	89	168

## Levels and Sources of Income

Historically, the income situation in rural areas of north-central New Mexico has been in vivid contrast to the prosperity realized by the state as a whole. During and since World War II, the location of military bases, research installations and mineral development brought military and technical personnel into the state and provided local employment. As this expansion has continued, the state has had a spectacular economic growth. The population increased from 531,000 in 1940 to 891,000 in 1957, about 68 per cent. However, the northcentral part of the state has not shared proportionately in the increased prosperity.

In 1956, about 34 per cent of the 234 sample households had incomes

of less than \$1000, and 56 per cent of them reported incomes of less than \$2000 (table 20). The low-income situation is severe for both the farm and rural non-farm segments, nor is the problem confined to any particular age group.

#### Levels of Income

The general pattern of 1956 income levels did not differ greatly between sample farm and rural non-farm households. However, farm households had a higher percentage with incomes of less than \$1000. The percentage with incomes of less than \$2000 was 59 for farm households and 55 for rural non-farm families. Incomes of \$4000 or more were reported

Table 20. Net income levels of households by rural classification, study area sample, north-central New Mexico, 1956

Income levels	Farm households		Non-farm households		All households	
	No.	Pct.	No.	Pct.	No.	Pct.
Under \$1000	27	43	47	30	75	34
1000 to 1999	10	16	40	25	49	22
2000 to 2999	10	16	20	13	30	14
3000 to 3999	6	9	23	15	29	13
4000 to 4999	7	11	7	4	14	6
5000 to over	3	5	21	13	24	11
Households reporting	63	100	158	100	221	100
Total	63		171		234	

by 16 per cent of the farm households, compared with 17 per cent for rural non-farm (table 20).

The average income per family for the sample households totaled \$2255 in 1956. The average for rural nonfarm families was \$2481, compared with \$1688 for farm families. Parttime and residential farmers had considerably higher net incomes than did those classified as commercial farmers. The average for commercial farms was only \$511, compared with \$3703 for part-time and \$2206 for residential farms. It might be pointed out, however, that 1956 was an unfavorable year for farm production in the sample area and that livestock prices were low. Only 20 of the 63 sample farms were classified as commercial, and 14 of 20 reported net family incomes of less than \$1000.

There is an inverse relationship between age of family head and family income level for the sample households. Normally, income levels would be expected to improve with increases in age, except possibly in the older age groups. However, the sample population is generally employed at manual labor and the ability to perform such tasks may decline with age. More than 77 per cent of the families whose family heads were 65 or over reported

total family incomes of less than \$2000 in 1956. This compares with 60 per cent in the 55- to 64-year age group, 49 per cent for the 45- to 54-year age group, and 43 per cent for those under 45. Only 10 per cent of the household heads in the age 65 and over group reported incomes of \$4000 or more. This compares with 17, 21, and 22 per cent, respectively, for the 55- to 64-, 45- to 54-, and under 45-year age groups (table 21).

It is generally concluded that there is a correlation between income and educational levels. One measure that might be taken to improve the income situation in such rural low-income areas as north-central New Mexico is a comprehensive educational program. Even though job opportunities in the area are limited and generally manual in nature, such a program should be of value in fitting residents for employment outside the area.

#### Sources of Income

Relatively high proportions of the incomes of the sample households were from sources other than employment in 1956. This is particularly true at the lower income levels. Nearly a fifth of the sample households received public welfare assistance in that year, and about 30 per cent of them

Table 21. Distribution of households by age groupings of household heads and level of income, study area sample, north-central New Mexico, 1956

Income		Age group										
levels	6	65 and over		55	55 to 64		o 54	Under 45				
	N	o.	Pct.	No.	Pct.	No.	Pct.	No.	Pct			
Under \$1000 .	3	37	61	19	40	14	33	9	11			
1000 to 1999 .	1	.0	16	10	21	7	16	26	32			
2000 to 2999 .	•.	5	8	7	15	7	16	10	12			
3000 to 3999 .	•.•	3	5	4	8	6	14	19	23			
4000 to 4999 .	•••	1	2	5	10	2	5	7	9			
5000 or over .		5	8	3	6	1	16	11	13			
Total	6	<b>i</b> 1	100	48	100	43	100	82	100			

received either public welfare or unemployment compensation, or both. Most of these recipients were in the less than \$1000 and the \$1000 to \$1999 annual income groups.

Some contend that such assistance programs, though necessary, have some inherent characteristics that conflict with income improvement possibilities. Some recipients of public welfare or similar assistance may find it to their immediate economic advantage to reject some work opportunities to protect their income from assistance sources.

However, elimination of welfare assistance programs would not be a step toward solving the low-income problem. Social considerations would not permit such drastic action, which would bring hardship and suffering to an area of this kind. It may, how-

ever, be desirable to reappraise the organization and policies of such programs with a view toward providing more inducement for acceptance of local employment and greater incentive to seek employment outside the area.

In 1956, income from farming in the sample area was very low. This was due partly to the unfavorable moisture conditions in that year, which resulted in inadequate irrigation water supplies. At the higher income levels, the principal source of farm family income was from non-farm employment. The main source for those with incomes of less than \$1000 was from non-work incomes.

For non-farm families, the main source of income at the higher income levels was from employment, but for those with less than \$2000, non-work income was the principal source.

# **Adjustment Potentials**

Those rural households which are in a chronic low-income state are one of the major concerns of this study. In appraising the low-income problem, it is important to indicate the general nature of adjustment potentials.

In pursuing this objective, a classification by major characteristics of

household heads reporting low family incomes was made. The classification was made for households which were considered to be in chronic low-income positions. Households with net cash incomes of less than \$2000 in 1956 were included, with the exception of those who appeared to be only temporarily in a depressed income

state. For the most part, these temporary low-income households were farmers with 1956 incomes of less than \$2000 who would usually have incomes exceeding that amount. However, because of severe irrigation water shortages and depressed livestock prices in 1956, they reported low incomes.

Of 221 rural households reporting on 1956 incomes, 124 were classified as being in a chronic low-income position. Of these 124 households, 69 per cent had a household head who was 65 or more, had a physical limitation that restricted employment ability, had less than five years of formal education, or the head of the household was female. Of the remaining 31 per cent. nearly half were 45 or over (table 22).

Results of this classification indicate the limited extent to which these household heads with low family incomes could make major adjustments that would improve their income posi-

tions. More than 30 per cent of the 124 low-income households were receiving public welfare assistance. About 38 per cent of the households having family heads with occupational handicaps were recipients of public welfare. This compares with only 13 per cent for those without handicaps.

For family heads with occupational limitations, there may be little opportunity to redirect their activities toward improving their employment income. Improvements in the welfare of this group would be largely through direct payments and technical guidance programs. A reappraisal of present assistance programs may reveal a means of contributing to the human welfare of these households. For household members other than the household head and spouse, the opportunity for adjustment either within or outside the study area is much greater because they are generally younger and better educated than the bead and his spouse.

Table 22. Characteristics of household heads with net family cash incomes of less than \$2000, study area sample, north-central New Mexico, 19561

•	Non-farm nouseholds	Farm households	All households
	No.	No.	No.
Total households	171	63	234
Households reporting on income	158	<b>63</b>	221
Households reporting incomes less than \$2000.	87	37	124
	Pct.	Pct.	Pct.
Household heads with employment limitation:	-		<del></del>
Male heads age 65 and over	<b>28</b>	27	27
Under 65 with physical limitations reported.	10		7
Under 65 without physical limitations report	ed		
but with under five years of formal education	ı 9	22	13
Female heads	30	3	22
Male household heads without employment lim	itations:		
Age 55 to 64	<b>2</b>	24	9
Age 45 to 54	<b>2</b>	11	5
Under age 45	18	13	17

<sup>1</sup> Percentage totals may not add exactly to 100 because of rounding.

### Farm Characteristics

#### Size of Farm

In terms of cropland, the sample farms are very small. Although the average was 52 acres of cropland, the median was only 21 acres. Nearly 51 per cent of the 63 farms had 20 acres or less of cropland, and 25 per cent of them did not exceed 10 acres.

Although cropland acreage as a measure of size of farm in the sample area has limitations, it does give some general indications from which inferences can be drawn. Measures of size of farm on this basis appear to be less misleading than alternative ones. Net income as a measure of size would be less desirable because 1956, the year for which income data are available, was a very unfavorable year. Size based on total acreage means little because of the wide variations in proportions of cropland to grazing land among farms. The productivity of grazing land in the area is much less than that for cropland. Distribution of sample farms by cropland acreage groups and average acres of cropland and grazing land is presented in table 23.

# Income and Investment Characteristics

A classification of the sample farms by gross farm income levels reveals to some extent the nature of the low-income problem. Only 20 of the 63 sample farms were classified as commercial. The rest were classified as parttime or residential. Furthermore, nearly two-thirds of the 20 commercial farms sold less than \$2500 worth of farm products in 1956, and 40 per cent of them had sales of less than \$1200. Distribution of the commercial farm level of gross farm sales is shown in the tabulation below.

The main source of farm income in 1956 for the sample farms was from the sale of livestock and livestock products. Only 8 per cent of the value of farm products sold in 1956 was from crops. Livestock and livestock products accounted for 87 per cent and miscellaneous farm income for 5 per cent. For commercial farms, the proportion of sales from crops was 7 per cent, compared with 20 per cent for part-time and residential farms. Livestock and livestock products accounted for 89 per cent of gross farm income for commercial farms and 74 per cent for part-time and residential farms. The value of products for home use averaged \$318 for commercial and \$230 for part-time and residential farms.

Farm expenses exceeded gross income (including the value of perquisites) reported for the 63 farms. Over 35 per cent of the farms reported farm expenses in excess of farm income. The proportions were 25 per cent for commercial and 42 per cent for part-time and residential farms.

Level o	f sales	Commercial farms
		(No.)
\$ 250	to \$1,999	8
1,200	to 2,499	<b>5</b>
2,500	to 4,999	3
5,000	to 9,999	<b>2</b>
10.000	and over	2

Table 23. Distribution of sample farms by cropland and acreage groups and average acres of cropland and grazing land, north-central New Mexico, 1957

Cropland Acres	Farms	Average cropland per farm	Average grazing land per farm	Average all land per farm
	No.	Acres	Acres	Acres
10 and under	16	6	108	114
11 to 20	16	15	473	488
21 to 30	. 11	27	168	195
31 to 50	. 8	39	267	306
51 to 80	. 5	69	6,203	6,272
81 to 160	. 3	121	4,762	4,883
161 and over		410	6,680	7,090
Total or average	. 63	52	1,336	1,388

Non-farm income averaged \$1098 for commercial farms, compared with \$2455 for part-time and residential farms. As farm income data were obtained only for 1956, which was a very unfavorable year because of a shortage of irrigation water supplies and depressed livestock prices, farm income data are not shown.

#### Crops and Livestock

The principal crop acreages on the sample farms in 1956 were cropland pasture, hay crops, and small grains, in that order. Row crops and fruits and vegetables accounted for only a small percentage of total cropland.

The principal crops were grown largely on the commercial farms. Home gardens and hay crops were most important on part-time and residential farms. Nearly 29 per cent of all cropland was idle or fallow in 1956. This is attributed partly to the very unfavorable moisture conditions in that year. Nearly half of the cropland in commercial farms was idle or fallow, compared with only 18 per cent for part-time and residential farms. Table 24 illustrates the limited acreage in crops and the variations be-

tween commercial and part-time and residential farms.

Beef cattle and sheep were the chief kinds of livestock found on the sample farms. The 20 commercial farms accounted for more than 90 per cent of the total number of sheep on the sample farms and for more than two-thirds of the beef cattle. Other classes of livestock, including dairy cattle, hogs, horses, and goats, were of minor importance. Distribution of livestock numbers by kind and by farm classification is shown in table 25.



Sheep are one of the most important kinds of livestock in north-central New Mexico.

Table 24. Total acreages of principal crops by farm classification, study area sample, north-central New Mexico, 1956

Land use	Commercial farms	Part-time and residential	All farms
	Acres	Acres	Acres
Pasture	264	741	1,005
Hay	197	224	421
Small grains	85	<b>54</b>	139
Row crops	<b>22</b>	15	37
Fruits	10	13	23
Vegetables	<b>2</b>	4	6
Home gardens	<b>36</b>	253	289
Idle and fallow	<b>556</b>	369	925
Not harvested	<b>7</b>	421	428
Total cropland	1,179	2,094	3,273
Total farms	20	43	63

#### Farm Finance

Except for a few of the larger commercial operators, the use of credit to finance farm operations was the exception rather than common practice. Only 20 of the sample farm operators reported that they owed on debts for any purpose. Commercial farms accounted for about 80 per cent of the total of the sample farm indebtedness outstanding at the end of 1956. Three of the larger commercial farms accounted for 68 per cent of the total amount outstanding.

Of a total indebtedness of about \$127,000 outstanding at the end of 1956, more than 81 per cent was in real estate mortgages and commercial farms accounted for nearly 91 per cent of it. The three larger commercial farms accounted for more than 83 per cent of the \$103,000 real estate debt outstanding.

Only about \$18,000 in chattel mortgage debts was outstanding on the sample farms at the end of 1956. About 51 per cent was owed by commercial operators. For the most part, chattel mortgages for non-commercial operators were for purposes other than

Table 25. Distribution of livestock numbers by kind and by farm classification, study area sample, north-central New Mexico farms, 1956

Kind of stock	Commercial farms	Part-time and residential	Ali farms
	No.	No.	No.
Beef cattle	1,127	557	1.684
Sheep	2,5 <b>4</b> 0	203	2,743
Dairy cattle	<b>7</b>	29	36
Hogs	11	18	29
Goats	8	2	10
Horses	58	53	111
Total farms	20	43	63

farm operations—mainly for automobile purchases.

Other debts reported totaled less than \$6000 for the 63 farms. These debts included open accounts at retail stores, loans from relatives, hospital and medical bills, and miscellaneous.

For the smaller operators—those in the lower income groups—use of credit for farming was practically non-existent. This is attributable to several factors. Farmers in the north-central part of New Mexico have traditionally resisted credit that uses their physical resources as security. By and large, these operators indicated that they did not seek credit, giving the reason that either it was not available or that if available, they would not be able to repay.

The case of sample farmer "A" may be used to illustrate a financial situation that would apply to some extent at least to other farmers in the area. Mr. "A" operates an 80-acre farm, of which 25 acres are cropland. He is 60 years old and has a wife and nine children ranging in age from 5 to 19 years. In addition, an unemployed son-in-law is a member of the household.

This operator had a gross farm income of about \$1000 in 1956, with no other income reported. He is not seeking off-farm employment nor is the unemployed son-in-law. Mr. "A" stated that he could have used credit profitably in 1956, but did not try to get it because (1) he didn't think it was available and (2) he didn't think he could pay it back if it were available.

These data raise some of the questions and illustrate some of the problems associated with farm credit and farm development in this critical area. In most instances, provision of farm credit for the lower income groups probably could not be made on a basis approaching sound credit principles. However, if a sufficient number of people could be moved out of farming, and the size of farm of the remaining operators could be increased—in many instances to several times the present size—credit would be of considerable importance in implementing and maintaining more adequate farm units. A credit program should be included in any comprehensive rural-development program.

# **Appraisal**

The study reported presents information that indicates the nature and to some degree the extent of the rural low-income problem in north-central New Mexico. It has not been possible to evaluate these data in the quantitative terms needed to outline measures that might be taken at stated levels of problem alleviation. However, they do give some indication of general directions that might be taken to achieve advancement in the economic position of these people.

The problem is not confined to farm families but extends to rural non-farm people as well. The prob-

lem is perhaps more severe in the latter group—partly because they comprise a larger segment of the rural population.

The low-income problem in this area is complicated by social and cultural as well as economic factors. A tradition of close ties between family, community, and church has limited migration from the area. Further limitations have come about through characteristics that impair employment conditions and prospects. These include such conditions as age, physical impairments, sex, and educational levels.

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Two principal areas might be explored in attempting to improve the low-income situation in this area. The first might deal with the younger people and the second with the older people, who have a more difficult adjustment problem. These two groups comprise a large proportion of the low-income population of the area.

From the standpoint of adjustment in employment, including migration from the area, the younger age groups are in a more favorable adjustment position. They have had more formal education and are in a better position to further their education and to take specialized training. The younger age groups are largely children of the householders and are not charged with the responsibility of providing for family living to the extent of the older age groups, who are chiefly household heads or their wives. So, perhaps it is with the youth of the area that the greatest adjustment potential lies.

In terms of employment possibilities, adjustment opportunities for the older age groups are limited. Of 124 household heads with family incomes of less than \$2000, about 69 per cent had some characteristic that might limit employment. The extent to which these limitations would impair employment adjustment is not known. No doubt, some of these household heads are capable of achieving higher incomes. However, many of them might need to rely on such technical assistance programs as farm and gardening practices, handicraft, or others to make living more pleasant.

Of the 124 low-income households 31 per cent were not considered to have severe limitations to adjustment. However, about 30 per cent of this group were aged 55 to 64 and 16 per cent were from 45 to 54.

Development of economic institutions such as industry and a program to provide incentive for outmigration appear to be of prime importance as steps in alleviating the situation. Industrial development has been minor, and there is no assurance that substantial progress will be made in the immediate future in the absence of a subsidized program. Water supplies in the area are limited and essentially under full appropriation and use at present. Substantial industrial development would result in heavy competition for available water supplies. However, industrial use of available water might result in a greatly improved economic situation through higher value of water use.

The rural development program will need to be flexible in timing and coordination of actions in this complex situation, if the most effective measures are to be taken. The principal lines along which action might be taken are:

- (1) A program to induce outmigration, which might be directed primarily to the younger age groups.
- (2) An improved education program that would emphasize specialized training for the younger and middle groups and the handicapped.
- (3) A program to induce industrial and related economic development to provide steady employment.
- (4) Agricultural assistance designed to increase the size of farm units and improve practices and management.
- (5) A technical assistance program including such items as home gardening, home management, and handicrafts. Such a program would be of particular benefit to those with employment limitations the aged, the infirm, and female household heads.
- (6) A reappraisal of public programs, such as welfare assistance, to determine if some adjustments might improve the situation.

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